



**SAN JUAN COUNTY
DEPARTMENT OF COMMUNITY DEVELOPMENT**

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STAFF REPORT TO THE HEARINGS EXAMINER

Hearing Date: December 27, 2017
Report Date: December 13, 2017
Project Planner: Julie Thompson
Through: Linda Ann Kuller, Planning Manager
File #: PSJ000-17-0003
Project Description: Shoreline Substantial Development Permit for:

- Community dock;
- Reverse osmosis desalination system for six residences; and
- Navigation buoy

Staff Recommendation: Approve with conditions

Project Data	
Island:	San Juan
Site Address and Location:	57 Island Marble Lane
Parcel Number(s):	353344008, 340411003, and 340411005
Site Size:	40+ acres
Owner(s):	Orca Dreams LLC PO Box 928 Friday Harbor, WA 98250
Agent:	Law Office of Stephanie Johnson O'Day Francine Shaw PO Box 2112 Friday Harbor, WA 98250
Land Use Designation:	Rural Farm Forest
Existing Land Use:	Residential
Shoreline Designation:	Rural Farm Forest
Critical Areas:	<ul style="list-style-type: none"> • Fish & Wildlife Habitat Conservation Area • Critical Aquifer Recharge Area

BACKGROUND

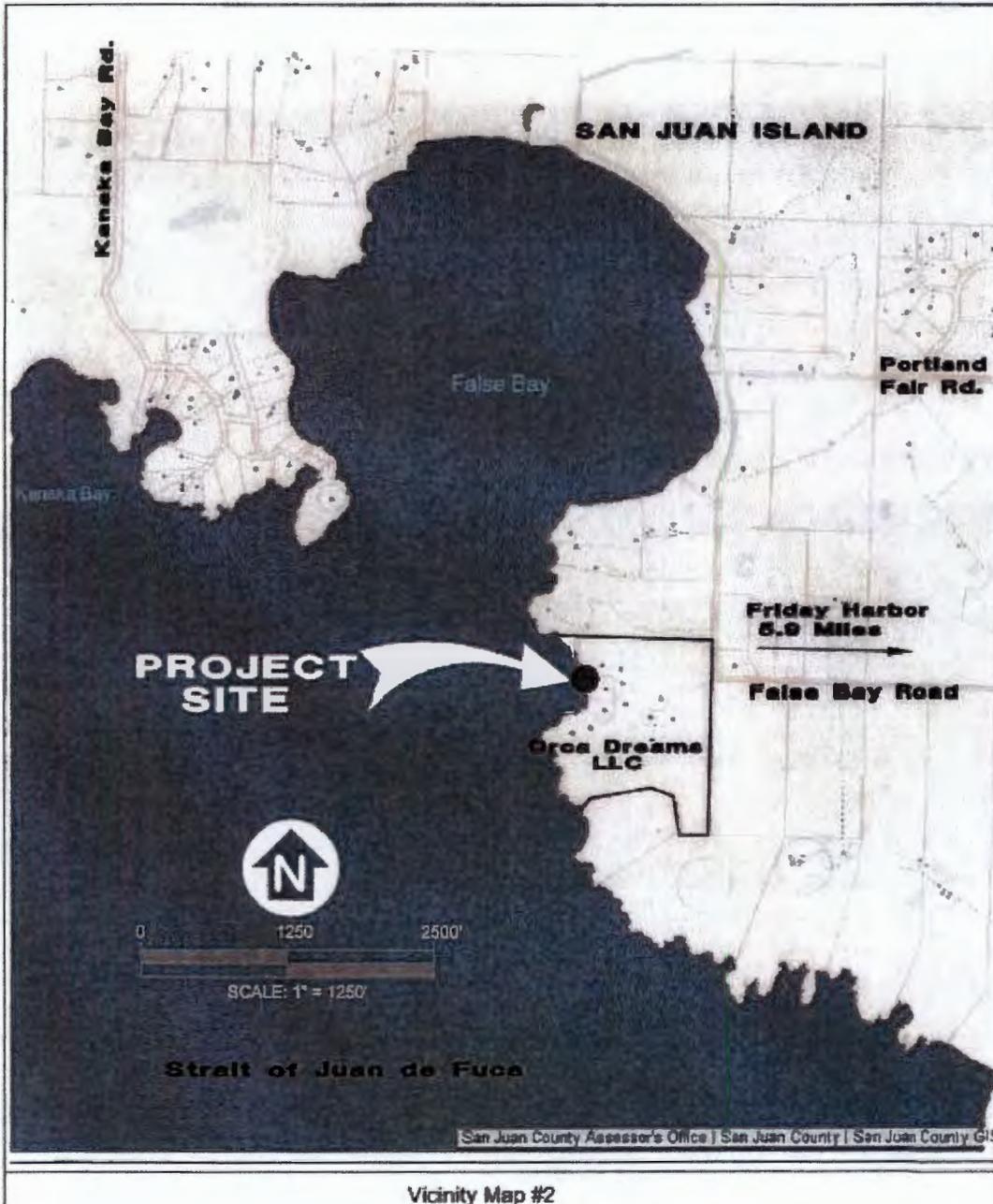
Description of the Proposal

Revised site plans and maps dated June 7, 2017 for the entire proposal are located in the application materials, Exhibit 5

1. Community Dock: Orca Dreams LLC is proposing to place a four-slip dock to serve their three waterfront parcels (353344008, 340433003 and 340411005) and five existing single family residences.

2. Navigation Buoy: The applicants are also proposing to install a navigation buoy to mark a rock outcropping located approximately 95 feet seaward of the seaward end of the proposed community dock.

3. Reverse Osmosis Desalination System: They are also proposing to install a reverse osmosis desalination system capable of providing potable water to six single-family residences.



Vicinity Map #2

Dock

The dock will be constructed on tax parcel number 340411003. The dock will be sited where the remnants of the old Mar Vista Resort dock are located. The application materials call these remnants a wooden shore mount and eight creosote piles. The dock will provide moorage for four boats ranging in size from 18 to 35 feet. The dock will

provide recreational boating opportunities for the applicants and their family. The float will be removed and stored at Snug Harbor Resort from November through the end of April each year to prevent storm damage to the float. The seaward end of the ramp will be lifted out of the water and secured to the two landward float support piles during this time.

A revised Biological Assessment dated October 24, 2017 was submitted on December 1, 2017, Exhibit 6. The proposed dock was changed slightly from the originally submitted proposal dated February 24, 2017. The size of the proposed dock changes from 1729.8 square feet to 1577.8 square feet. The existing wooden pier head shore mount which remains from the old Mar Vista Resort dock will not be reused as was originally proposed. The width of the proposed pier sections has been changed from 6' 9" to 6'. The width of the proposed ramp has been changed from 4' 9" to 4'. The twelve proposed 10" diameter galvanized steel piles have been changed to eight 10" diameter galvanized steel piles and four 10" diameter epoxy coated steel piles.

The proposal includes the removal of eight existing creosote-treated pilings.

The dock will consist of:

- A new 6' 9" x 2' concrete abutment landward of the OHWM providing access to the dock from the shoreline (13.5 square feet);
- 6' wide x 144' long fixed pier (864 square feet);
- A 4' wide x 60' long aluminum ramp (240 square feet) attached to the seaward end of the pier and connecting to;
- An 8' x 60' long (480 square feet) moorage float with float anchors attaching the seaward end of the float to the seafloor to keep the float steady; and
- Eight 10" diameter galvanized steel piles and four 10" epoxy coated steel piles (6.5 square feet).

The total area of the pier, ramp and float will be 1577.8 square feet, excluding the ramp float overlap, the concrete abutment, and the pier shore mount. The total length of the dock will be approximately 260 feet.

The entire deck of the fixed pier, ramp and float will be constructed with "Sun Walk" light penetrating grating with 46% open area that allows 69.9% of the available sunlight to penetrate to 18" below each panel and 86.2% of available light measured below the panel.

The fixed pier will be elevated approximately 5 feet above the beach at the landward end and 14 feet above the seafloor at the waterward end. Eight 10" diameter galvanized steel piles and four 10" epoxy coated steel piles will support the fixed pier.

The ramp will be welded aluminum with fiberglass grated decking and will span approximately 60 feet between the fixed pier and the float. Functional grating of the ramp is 96.5%.

The float will be constructed with a treated wood frame with "Sun Walk" molded plastic grated decking and plastic encapsulated, foam-filled float tubs. Four epoxy guide piles and two anchors with elastic cords will hold the float in place. These anchors will be either auger or duckbill type earth anchors.

Navigation Buoy

A navigation buoy to mark a rock outcropping that is located about 95 feet seaward of the seaward end of the proposed community dock. The rock outcropping is exposed during most tidal elevations but is submerged during high tides which creates a boating hazard to the users of the proposed dock.

The buoy will consist of a 36" diameter float with a mooring ring, attached to a six (6) foot length of one-half inch chain an undetermined length of one (1) inch braided rope based on water depth at high tide, and an eight (8) inch

diameter non-compressible mid-line float that will elevate the anchor line off the sea floor to prevent scouring, and an embedded helix anchor.

Reverse Osmosis Desalination System

A reverse osmosis (RO) seawater desalination system is proposed sized to augment drinking water for a total of six single-family residences. See page 3 of 8 in Exhibit 10 for the location of all the components of the system. An easement from the Washington State Department of Natural Resources has to be obtained for the desal lines to be located on state-owned tidelands. The parts of the system that will be located over state-owned tidelands are the saltwater intake, brine discharge, electrical lines, saltwater intake pump and brine diffuser, and two six inch support pilings.

According to the application materials, based on the State Department of Health's requirements, the maximum system demand for six single-family residences will be about 2,310 gallons of water per day. The RO system will be capable of producing 3,000 gallons of fresh water per day. The RO system will be used to augment the water supply produced by an existing well (Well ID #BBM 060). The well capacity is 1.1 gallons per minute or 1,584 gallons per day. Therefore when the well is operating normally and under maximum daily demand, the RO system would produce just 726 gallons of fresh water per day to meet the expected demand of 2,310 gallons per day. If the well yield is reduced for some reason, the RO system could supply whatever additional water is needed to meet system demands. See page 9 of Exhibit 4.

The RO system will draw seawater from Haro Strait and pump it about 1,030 feet to a treatment room that will be installed within an existing barn located upland on the northeasterly corner of the property. The seawater will be treated and the resulting product water will be pumped about 360 feet to an existing 40,000 gallon concrete storage tank where it will be available for distribution in the water system. The resulting brine will be conveyed back to the shoreline via a dedicated pipe. The brine will pass through a diffuser before being released into Haro Strait.

The applicants have two alternatives for locating the desalination utility lines:

Preferred Alternative 1: If construction of the dock is authorized and all permits are issued at the same time as the RO system, the two projects will be integrated and construction will be completed at the same time. On-site construction will consist of driving or drilling the pump and diffuser support piles. Two 6" steel piles will be driven with a vibratory hammer or, where bedrock is encountered, the pilings will be set in drilled holes. The pump support piling will be located at the -7 tidal elevation and the brine diffuser piling will be located at about the -5 tidal elevation within the footprint of the proposed dock. Once the piles are installed, the contractor will install the pump and diffuser assemblies on the pilings. Seawater intake and brine discharge pipes, and electrical conduit will then be attached to the underside of the fixed pier from the pier head to the seaward end of the pier. From there, the pipes and conduit will extend down a pier support piling to the seafloor below at approximately -3 feet MLLW. The brine return line will extend about 56-feet seaward to the diffuser support piling at the -5 tidal elevation and the seawater intake line will then extend about 112 feet seaward and connect to the pump support piling located at the -7 tidal elevation. The pipeline will then be secured to the seafloor with earth anchors set 10' on-center. The work will be completed from the deck of a small boat and/or by divers where appropriate. The near shore and upland pipe trench will be excavated with a small track hoe when the tide is low so that digging and filling of the trench between MLLW and MHHW will be completed in one tidal cycle.

Alternative 2: If construction of the dock is not authorized but the RO system is, then on-site construction will consist of driving or drilling the pump and diffuser support piles. Two steel piles will be driven with a vibratory hammer, or where bedrock is encountered, the pilings will be set in drilled holes. The pump support piling will be located at the -7 tidal elevation and the brine diffuser piling will be located at about the -5 tidal elevation. Once the piles are installed the contractor will install the pump and diffuser assemblies on the pilings and install the seawater supply pipe, saltwater return pipe and electrical power conduit on the seafloor for about 160 feet from

the pump/diffuser assembly support pilings where they will then be buried below the seafloor for the remaining 115 feet to protect them from damage caused by wave action landward to the flushing valve vault located on the shoreline above the beach. The pipeline will be secured with earth anchors set 10' on-center where it is exposed above the seafloor. The work will be completed from the deck of a small boat and/or by divers where appropriate. The near shore and upland pipe trench will be excavated with a small track hoe when the tide is low so that digging and filling of the trench between MLLW and MHHW will be completed in one tidal cycle.

Conservation Measures

The following conservation measures for all aspects of the project have been prepared by Fairbanks Environmental Services in the Biological Assessment of this project, dated October 24, 2017, Exhibit 6, to protect and minimize the impact to the aquatic habitat:

1. Timing limitations: In-water work will only be allowed from September 1 through March 1 for the protection of salmon and bull trout.
 - a. Work below the ordinary high water line shall not occur from March 2 through August 31 of any year for the protection of migrating juvenile salmonids.
2. A qualified diver will mark the margins of the eelgrass beds to ensure that the dock is positioned with a minimum 25-foot buffer from the eelgrass beds.
3. Pile removal will follow the EPA Best Management Practices for Pile Removal & Disposal (EPA 2007).
4. A rubber cushion will be placed between the vibratory pile driver and the pile to reduce the generation of both airborne and underwater noise.
5. A collar will be placed around existing creosote-treated piling prior to removal to capture sediment and minimize any increase of turbidity associated with pile removal.
6. Observers qualified in identification of marine mammals and seabirds will be on site during all pile removal, driving, and drilling operations to watch for presence or absence of killer whales, other marine mammals, and marbled murrelet within the 1.34-mile action area. During vibratory pile removal and driving, one land-based biologist will monitor the area from the terminal work site, and one boat with a qualified PSO shall navigate along the boundary of the action area in a semicircular path. A 30-minute preconstruction marine mammal monitoring period will be required before the first pile driving, pile removal, or drilling activity of the day. A 30-minute post-construction marine mammal monitoring period will be required after the last pile driving, pile removal, or drilling activity of the day. If the construction personnel take a break between subsequent pile driving, pile removal, or drilling activities for more than 30 minutes, then additional pre-construction marine mammal monitoring will be required before the next start-up of pile driving, pile removal, or drilling activities. If marine mammals are discovered near or within the action area, observers will advise operators of their presence in order to abide by the shutdown procedure listed below. All presence/absence of marine mammals will be recorded and reported.

Pre-Construction Procedures:

- a. One observer will be stationed at the top of the bluff at the promontory just south of the project site.
- b. Two additional observers will be stationed in a boat and will be cruising in Haro Strait along the boundary of the 1.34-mile action area, or the 0.40-mile monitoring area if drilling operations are occurring.
- c. Observers will communicate with the contractor with both cellular telephones and VHF radios. Communication check will occur daily.

Shutdown Procedures:

- a. If a killer whale or large whale is observed approaching or within the 1.34-mile action area, all pile driving or pile removal activities will stop.
- b. If drilling operations are occurring, if a killer whale or large whale is observed approaching or within the 0.40-mile monitoring zone, drilling operations will stop.

- c. If a delay, power down, or shutdown occurs due to southern resident killer whale/s approaching or entering the 1.34-mile action area or 0.40-mile monitoring area for drilling, activities will not resume until the SRKW (1) is observed to have left the action area or monitoring zone or (2) has not been seen or otherwise detected within the area for 30 minutes.
7. Excavation in the intertidal zone will be completed 'in the dry' during low-tide events and when the work area is exposed. A small track hoe will be used to dig a trench for placement of pipes and electrical conduit between the valve vault and MLLW. The trench will be filled before being inundated by the rising tides.
8. The following BMPs described in the Stormwater Management Manual for Western Washington Volume II; construction Stormwater Pollution Prevention (Ecology 2014) will be followed to minimize the amount of fine sediment from entering marine water due to disturbance of soil in the RO desalination system work corridor.
 - a. BMP C101: Preserve Natural Vegetation
 - b. BMP C153: Material Delivery
 - c. BMP C230: Straw Bale Barrier
 - d. BMP C233: Silt Fence
 - e. BMP C235: Straw Wattles
9. The contractor will have a prepared Spill Control and Countermeasure Plan (SCC Plan) that addresses specific actions to prevent petroleum products from being discharged into surface waters. Biodegradable hydraulic fluid will be used in equipment operating waterward of the OHWM. The contractor will also have oil-absorbent materials on site to be used in the event of a petroleum product spill and measures to avoid petroleum products or other deleterious materials from entering surface waters will be taken.
10. Eelgrass and macroalgae will not be adversely impacted due to any project activities:
 - a. The construction barge will not be allowed to ground in the Project area.
 - b. Propwash will not be directed toward eelgrass beds that are mapped near the Project area.
 - c. Barge anchors and cables will not be placed in the eelgrass bed that is mapped to the south of the dock alignment.
11. All construction materials will be removed from the work site and natural material will be returned to their original position at the end of construction.
12. Petroleum products will not be transferred on or near the joint-use dock. Fuel and lubricating oil will be purchased and transferred at licensed fuel stations.
13. A private navigation buoy will be installed to mark the location of rocks that are seaward of the proposed float.
14. Boat operators will use the clear channel along the southern approach to the proposed dock to prevent collision with submerged rocks and avoid impacts to the False Bay Reserve.
15. The float and ramp will be removed from the site on or near November 1 and reinstalled on or near May 1.
16. The BMPs in the Orca Dreams Spill Containment, Prevention, and Control Plan will be strictly followed.

Application Processing Procedures

- Date Application Submitted: March 3, 2017
- Date Complete: May 19, 2017

SEPA

A Revised Mitigated Determination of Non-significance was issued for the proposal on October 4, 2017. The Department of Ecology issued Material Identification #201705257. The MDNS has been appealed by two separate parties in PAPL00-17-0010 and PAPL00-17-0012.

GOVERNMENT PERMITS AND APPROVALS NEEDED

- Shoreline Substantial Development Permit from San Juan County
- Hydraulic Project Approval from the Washington State Department of Fish and Wildlife
- Certificate of CZMA Consistency from the Washington State Department of Ecology
- Section 10 Permit and SPIF from the US Army Corps of Engineers
- Easement for the desal lines to be located on state-owned tidelands from the Washington State Department of Natural Resources
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NOTICING

- Published: September 6, 2017 and October 4, 2017
- Mailed: September 5, 2017
- Posted: September 6, 2017

REVIEWING AGENCY COMMENTS

A total of five agencies were notified of this development proposal on September 6, 2017 and comments were requested.

- Bob Fritzen, Department of Ecology, sent an email dated May 30, 2017 pointing out that the bottom contour map is misleading because the map on page 4 of 11 of the drawings included in the Biological Assessment shows the bottom keeps getting deeper where the rock outcrops are. The contour lines end at -4 under the ramp, but there is nothing under the float.
- Julie Blakeslee, Environmental and Land Use Compliance Officer with the Capital Planning & Development Department at the University of Washington, in a letter dated September 19, 2017, urged the county to issue a Determination of Significance and require an Environmental Impact Statement (EIS) for the proposed actions. She lists the potential adverse environmental impacts that should be analyzed in an EIS as:
 - Displacement of sea grass habitat
 - Disturbance of ongoing research
 - Negative impact on resident Orcas
 - Impact on pocket beach
 - Impact on marine birds
 - impact on sea grass and algae
 - Impact on Pinto abalone
 - Impact of desalination system on biological resources and water quality.

Her letter explains why she thinks an EIS is required.

- Billie Swalla, Director of the University of Washington's Friday Harbor Laboratories, in a letter dated September 20, 2017, explains that the University of Washington owns False Bay and they are concerned that a dock so near to the mouth of False Bay could compromise the Bay by bringing boat traffic and its associated oil, gas, noise and increased human impacts to the area. She lists the same areas of concern that are stated by Julie Blakeslee, above. She also lists these other concerns:
 - This dock will be the only one on the West Side of San Juan Island. There are currently no docks from Cape San Juan to Mitchell Bay, making the west side a refuge for whales, fish, birds, shellfish, crabs and invertebrates who make their home near and in False Bay.

- This dock is unlikely to last in this Location. The dock will be exposed to the high winds and high waves from the Strait of Juan de Fuca and Haro Strait and is likely to be eventually destroyed by winter storms. This would lead to oil spills and debris damage in False Bay, from the boats, the dock and the floats.
 - The Port of Friday Harbor Marina and Jensen's Marina are close: The owners justify the dock by stating that there are no slips at the Port of Friday Harbor. However, the Port has openings every winter. The San Juan Island marinas are a much safer and sheltered way to care for boats, reducing the damage that they may cause in high storms.
- Megan Dethier, Associate Director for Academics and the Environment at Friday Harbor Laboratories, in a letter dated October 2, 2017, notes that other personnel from the University of Washington have commented on the potential adverse impacts from the dock. She limited her comments to the proposed desalination system. She finds the application to be lacking critical information.
 1. The amount of brine estimated to be released is large. There is no information on what the salinity of that brine will be. High-salinity water can be toxic to marine organisms, which are adapted to a small range of salinity. The information about brine concentration should have been provided, and greater analysis given to its effects on marine resources.
 2. The application states that the brine will be released through a diffuser, but no information is given on the design of this diffuser, nor on the circulation of water in the area around the diffuser. Brine release into an area of little water exchange will remain pooled on the bottom where it will kill marine life. Given the diversity and high biological value of the marine life in this area, the issue of brine retention should have been explored in more detail.
 3. The application states that there are not threatened or endangered species likely to be impacted by the dock or desal system. However, they note that there are Northern Abalone in the area, and this species is listed as a State Candidate (the third highest category of concern). Dumping brine and adding a dock with the potential for fuel spills and concentrated bottom paint residues into a region where there is a state-listed species is a potentially significant impact.
 4. The application states that there are "no hazardous chemicals" associated with the RO system, but then clearly states that there will be a 40 gallon tank of chlorine. Chlorine is used in such applications because it is a strong poison, for both terrestrial and marine life. A 40 gallon tank of a poison qualifies as hazardous, realistically if not legally. What safeguards are there to keep that chlorine out of the environment?
 5. Most desalination systems need to use various chemicals for periodically removing deposits from the equipment; sometimes those descaling agents are flushed out with the brine. There was no mention in the application of the use and disposal of cleaning solutions for this system; since the applicants are envisioning fairly high-volume, year round use, this issue should have been addressed.

She urges the County to withdraw the Determination of Non-Significance.

- Doug Thompson, Habitat Biologist with the Department of Fish and Wildlife, in a letter dated November 22, 2017, points out that there is no discussion in the SEPA checklist or the MDNS of project impacts to pinto abalone and their habitat which has been designated by WDFW as a "Candidate Species" and a "Species of Greatest Conservation Need". He would like to see a WDFW approved survey for pinto abalone completed to determine the presence or absence of this species within the project area. If a survey determines there are pinto abalone in the area, then a monitoring and mitigation plan needs to be prepared that will achieve no net loss of the species.

He also states that the present eelgrass and macroalgae surveys conducted for this project as identified within the BA do not meet the standards of WAC 220-660-350. Eelgrass and macroalgae surveys must be

completed between June 1 and October 1 to accurately map the full extent of seagrass and macroalgae (kelp).

He is also requesting an analysis be performed or data provided discussing any potential impacts of the desal systems brine discharge to invertebrate species and macroalgae, and show at what distance from the outfall the concentrated brine is diluted to background levels.

The following issues mentioned in the agency letters we received are discussed in the October 24, 2017 Biological Assessment:

- *Eel grass and other marine vegetation habitat—Exhibit 6, page 4, 5, 12, 14, Appendix C page 3 and 6, Appendix D page 3*
- *Salinity of RO discharge water—Exhibit 6, page 17, 39 and 40*
- *Northern or Pinto abalone—Exhibit 6, page 11 and Appendix C page 6*
- *Diffuser design—Exhibit 6, page 8*
- *Dive survey timing—Exhibit 6, Appendix B, C and D*

PUBLIC COMMENT

We received approximately sixty comments letters, including those from the agencies who were sent the request for review. The majority of the authors are opposed to the dock for numerous reasons. See Exhibit Summary.

STAFF ANALYSIS

Applicable Policies and Regulations:

San Juan County Comprehensive Plan, Element 3

San Juan County Code

18.35.080	Critical aquifer recharge areas
18.35.130	Fish and Wildlife Habitat Conservation Areas
18.40.200	Desalination systems
18.50.070	Environmental impacts
18.50.150	Water quality
18.50.190	Boating facilities (including docks, piers, and recreational floats)
18.50.350	Utilities
18.80.020	Project permit applications—procedures
18.80.030	Notice of project permit applications
18.80.110	Shoreline permit and exemption procedures

San Juan County Comprehensive Plan, Element 3, Shoreline Master Program

3.1.B Relationship of this Element to the Unified Development Code

The shoreline use regulations which implement the goals and policies of this element are contained in Chapter 18.50 of the Unified Development Code (UDC). Chapter 18.50 is essentially Part 2 of the County's Shoreline Master Program with this element of the *Comprehensive Plan* being Part 1. Except where otherwise stated, the Master Program applicability is coterminous with areas shown on the Official Shoreline Master Program Designated Environments Map. In the event of a conflict between the provisions of the Shoreline Master Program and any other elements of the *Comprehensive Plan* or chapters of the UDC, the Master Program controls.

3.5.C Boating Facilities

Purpose:

Boating facilities include marinas, boat launches, covered moorage, boat houses, docks and piers, recreational floats, mooring buoys, marine travel lifts and railways, and retrieval systems. The different forms of boating facilities provide needed access to the water for marine craft appropriate to different situations. They also can interfere with public use of public waters and tidelands and some can affect wave action, act as driftway barriers, disrupt aquatic and intertidal habitats, and affect water quality. Location and design considerations are important to minimize adverse impacts. These facilities may be used for a variety of commercial, industrial, recreational, and other purposes. Such facilities are subject to requirements for the type of use to be served as well as to the provisions of this section and to the provisions in Section 3.6, Shoreline Modification.

Policies (3.5.C.1-23):

General

1. Locate, design and construct boating facilities to minimize adverse effects upon, and to protect all forms of aquatic, littoral or terrestrial life including animals, fish, shellfish, birds and plants, their habitats and their migratory routes.

The "Orca Dreams LLC Biological Assessment for the Joint-Use Dock and Reverse Osmosis Desalination System" revised October 24, 2017 was prepared by Fairbanks Environmental Services, Exhibit 6. It analyzes the affect that may occur to species listed under the Endangered Species Act (ESA) and their critical habitat due to the placement and use of the proposed joint-use dock, and installation and operation of an RO system in the marine environment and upland area.

A review of the Washington State Department of Fish and Wildlife Priority Habitats and Species identifies the following habitat and species to be observed in the Project Action Area.

Table 6. Washington State Dept. of Fish and Wildlife Priority Habitat and Species database

Species	Priority Area	Federal Status
Bald eagle (<i>Haliaeetus leucocephalus</i>)	Breeding area Management buffer	Species of concern
Golden eagle (<i>Aquila chrysaetos</i>)	Breeding area	Candidate
Harbor seal (<i>Phoca vitulina</i>)	Haulout	Monitored
Island marble butterfly (<i>Euchloe ausonides</i>)	Occurrence	Species of concern
Pinto abalone (<i>Haliotis kamtschatkana</i>)	Presence	Species of concern
Dungeness Crab <i>Metacarcinus magister</i>	Presence	Managed species
Red Sea Urchin <i>Strongylocentrotus</i>	Presence	Managed species
Marine intertidal habitat	Aquatic habitat	

The BA, Exhibit 6, also identifies San Juan County Critical Areas and the project's impacts to those critical areas in Table 7.

Table 7. San Juan County critical areas identified in project area.

Critical Area	Status	Impact
Net shore-drift and feeder bluff	No appreciable net-shore drift in project area	No impact
Northern abalone (<i>Haliotis kamtschatkana</i>)	Present in rocky intertidal habitat	Not likely to impact
Dungeness Crab <i>Metacarcinus magister</i>	Present	Not likely to impact
Red Sea Urchin <i>Strongylocentrotus</i>	Present	Not likely to impact
Eelgrass outer line	Present	Not likely to impact
Bald eagle (<i>Haliaeetus leucocephalus</i>)	Breeding area Management buffer	Not likely to impact

Conservation/mitigation measures are included in the BA to avoid and minimize impacts to ESA listed species. Table 1 on page 2 of the BA summarizes the effect on ESA listed species and critical habitat. The effect is either that the proposal is not likely to adversely affect, will not effect, or will not adversely modify any of the species or their habitat.

Page 11 and 12 of the BA discusses the findings of four separate dive surveys that have been conducted for this proposal.

2. Protect beneficial shoreline features and processes including erosion, littoral or riparian transport and accretion shoreforms, as well as scarce and valuable shore features including riparian habitat and wetlands.

No vegetation removal is proposed in the shoreline. Excavation in the intertidal zone will be completed in the dry during low-tide events when the work area is exposed. Stormwater BMPs have been identified to minimize the amount of fine sediment from entering marine water due to disturbance of soil in the RO system work corridor. The shoreline is bedrock; there is no appreciable net shore drift; and it is not an accretion shoreform. There are no wetlands in the vicinity of either the proposed dock or RO system.

3. The location, design, configuration and height of boathouses, piers, ramps, and docks should both accommodate the proposed use and minimize obstructions to views from the surrounding area.

The proposed use is to moor up to four pleasure craft for varying periods of time for six months a year. The float will be removed from November through April to protect it from severe storms. The proposed length is necessary to get the float into deep enough water.

4. Boating facilities should be designed to optimize the trade-offs between the number of boats served and the impacts on the natural and visual environments.

The proposed community dock is designed to moor up to four boats and serve five residences. It has been designed to have no significant impact on the environment if it is built in the proposed location because it will not be over eelgrass. Visually there will be an impact because there are no other docks anywhere nearby.

5. In providing boating facilities, the capacity of the shoreline site to absorb the impact should be considered.

There should not be an impact to the shoreline site. There is no vegetation removal proposed. There will be no excavation. There is an existing road that will access the pier.

Docks and Piers

6. The use of mooring buoys should be encouraged in preference to either piers or floating docks.

The applicants indicate that use of mooring buoys at this site would be more harmful than a community dock. See Exhibit 5, page 14 of 35. They would need four buoys to get the amount of moorage they are requesting. The DNR limits the amount of buoys per acre to four. They will also not license buoys that will ground out at low tide. This means the buoys would be placed further seaward than what is required from a safety standpoint due to the need to place the boats in an area with an appropriate water depth and away from the rock outcroppings in an area that is not protected from storm waves.

Buoys would also require construction of an area on the uplands above Extreme High Tide (EHT) to safely store four dinghies. This would require clearing an area approximately 360 square feet of native vegetation and the installation of a pulley system to get the dinghies up and over the driftwood line to the storage area. It would likely preclude the removal of the eight creosote piles because it would not be necessary to remove them.

7. The use of floating docks should be encouraged in those areas where scenic values are high and where serious conflicts with recreational boaters and fishermen will not be created.

A floating dock is secured to the shore by means other than a fixed pier. In this location, without the pier and ramp, a floating dock would ground out at most tides. The aesthetic impacts of the dock will be mitigated by the removal of the float during winter months and its lack of lighting fixtures.

8. Piers should be encouraged where there is significant littoral drift and where scenic values will not be impaired.

This is not an area of littoral drift. A pier alone would not allow for the mooring of boats.

9. In many cases, a combination of fixed and floating structures on the same dock may be desirable given tidal currents, habitat protection and topography, and should be considered.

This proposal includes a combination of fixed and floating structures. The applicants indicate that this is the best design for this project as it places the float at a depth where boats won't ground out, access to the pier doesn't require any construction, and the structure can withstand wave action if removed for the winter.

10. The County should attempt to identify those shorelines where littoral drift is a significant factor and where, consequently, fixed piers probably would be preferable to floating docks.

This is not an area of littoral drift.

11. To spare San Juan County from the so-called "porcupine effect" created by dozens of individual private docks and piers on the same shoreline, preference should be given to the joint use of a single

structure by several waterfront property owners, as opposed to the construction of several individual structures.

The community dock is designed for four boats serving three adjacent waterfront parcels and eventually five residential units.

12. Preference should be given in waterfront subdivisions or multi-family residential development to the joint use of a single moorage facility by the owners of the subdivision lots or units, or by the homeowners association for that subdivision or development, rather than construction of individual moorage facilities. Individual docks and piers should be prohibited, provided that the county may authorize more than one moorage facility if a single facility would be inappropriate or undesirable given the specific site and marine conditions. Such developments should include identification of a site for a joint-use moorage facility and the dedication of legal access to it for each lot or unit. However, it should be recognized that identification of a site for a common moorage facility does not imply suitability for moorage or that moorage development will be approved.

This is not a subdivision or multi-family development but the proposal is for a community dock.

13. The capacity of the shoreline site to absorb the impacts of waste discharges from boats and gas and oil spills should be considered in evaluating every proposed dock or pier.

The proposal includes a Spill Prevention, Containment and Control Plan in Exhibit 6 at Appendix E. According to that document:

"This plan has been prepared to set in place measures to avoid and eliminate any pollutants that may be generated by activities on or around the Orca Dreams dock from entering into the False Bay Preserve and the Strait of Juan de Fuca. This Spill prevention, Containment and Control Plan describes the measures to prevent spills and to prevent, control and minimize the effects of the release of petroleum products and polluting materials during and after construction."

Adherence with that plan is one of the required conservation measures.

14. Expansion or repair of existing facilities should be encouraged over construction of new docks and piers.

There are no facilities nearby to expand. There was once a dock at this location. The creosote pilings that remain on site will be removed if the dock is approved eliminating an environmental hazard.

15. To reduce the demand for single-user docks, multiple-user docks should be encouraged through construction and dimensional incentives.

Multiple-user docks are allowed to be larger and longer than single-user docks.

3.5.0 Utilities and Capital Facilities

Purpose:

Utilities are services and facilities that produce, transmit, carry, store, process or dispose of electric power, communications, oil, and gas. Utilities include small-scale distribution systems directly serving a permitted shoreline use such as power, telephone, water (including desalination and reverse osmosis facilities), sewer (including drain fields and septic tanks) and stormwater lines. Capital facilities are services and facilities for community water systems, and community sewage treatment facilities. The

installation of utilities and capital facilities apparatus necessarily disturbs the environment but the adverse physical and visual impacts can be reduced by thoughtful planning and adherence to design criteria.

The provisions in this section apply to uses and activities such as high-tension utility lines on public property or easements, power generating or transfer facilities, gas distribution lines and storage facilities, desalination or reverse osmosis systems, water and sewage treatment plants and outfalls. These facilities are addressed in this section because they concern all types of development and have the potential to affect the quality of the shoreline and its waters.

Policies (3.5.O.1-13):

1. Ensure that utilities and capital facilities necessary to serve shoreline uses are properly installed so as to protect the shoreline and water from contamination and degradation.

The RO system will be engineered to meet these requirements.

2. Locate utilities, capital facilities, and associated rights-of-way outside of the shoreline area to the maximum extent possible, or locate them within existing transportation and utility sites, rights-of-way and corridors. Joint use of rights-of-way and corridors should be encouraged. When utility lines, connections and piping require a shoreline area location they should be placed underground or located so as to protect scenic views, whenever practicable.

The lines, connections and piping are proposed to be placed underground.

3. Prohibit utilities and capital facilities in marshes, bogs and swamps, estuaries, critical wildlife areas or other unique and fragile areas unless no feasible alternative exists.

There are no marshes, bogs, swamps, estuaries, critical wildlife area or other unique and fragile areas on this site. It is now developed for residential use and was previously developed as a resort.

4. Locate utilities and capital facilities so as not to require extensive shoreline protection works. Utilities, capital facilities, and associated rights-of-way should be designed and located in a manner which preserves the natural landscape and shoreline ecology and minimizes conflicts with present and planned land and water uses.

Shoreline protection work will not be required due to the RO system.

5. Utilities and capital facilities, including desalination and reverse osmosis systems, should not impede public access to public tidelands or materially interfere with normal public use of public waters.

The RO system will not impede public access or interfere with public use of public waters.

6. Restore shorelines to pre-project configurations and replant with natural species upon completion of utility and capital facility projects.

The upland trenches for the RO system lines will disturb grasses, which will be replanted upon completion.

7. Locate desalination lines within or alongside existing paths and trails and/or connect them to existing docks and beach access structures wherever feasible.

Access to the RO system components in the shoreline will utilize an existing road.

8. Desalination or reverse osmosis systems which are normal appurtenances to a single-family residence should be exempt from shoreline permit requirements. Such systems are limited to those that do not involve intakes or outflows seaward of the OHWM.

This proposal involves intakes and outflows that will be located seaward of the OHWM.

9. Desalination and reverse osmosis systems should not be allowed as the primary water supply to serve new subdivisions and short subdivisions.

This proposal will not serve a new subdivision. It will serve existing residential development.

10. On shorelines that are known or demonstrated to be eroding bluffs, unstable bluffs, eroding beaches, or exposed cliffs, require professional engineering to assure that no significant visual or environmental impacts will be created.

This is not an eroding bluff, unstable bluff, eroding beach or exposed cliff.

11. Encourage the connection of desalination and reverse osmosis intake and discharge lines to existing docks, stairways or other features as opposed to new and separate structures for these facilities.

The preferred alternative for the RO system is to attach the lines to the proposed community dock. There are no existing structures to connect them to.

12. Locate and design all desalination and reverse osmosis production equipment and necessary pumping equipment, utility connections, and pipelines to blend in with the natural surroundings to the extent feasible to reduce visual impacts. Existing vegetation and terrain features should be used whenever possible for screening.

All lines will be underground or under water. The upland part of the system will be housed in an existing barn.

13. The use of new wells or existing wells with salt water intrusion or contamination as the intake source, and/or the use of land disposal of discharge for desalination or reverse-osmosis systems, should be allowed only with the approval of the County Sanitarian.

This is not proposed.

SJCC 18.35.080 Critical aquifer recharge areas.

D. Plan Review. Prior to approval, the department shall review plans for commercial, industrial, public and institutional facilities for conformance with the requirements of this section. To facilitate this review, the applicant shall provide a list of the quantities and types of chemicals that will be used, proposed spill containment plans, and a plan for disposal of waste materials.

Although this is not a commercial, industrial, public or institutional facility, the RO system does require storing a certain type and number of chemicals, including the forty-gallon chlorine tank. If this project is approved, prior to construction of the RO system the applicant shall provide a list of the quantities and types of chemicals that will be used, proposed spill containment plans, and a plan for disposal of waste materials.

SJCC 18.35.130 Protection standards for aquatic fish and wildlife habitat conservation areas (FWHCAs).

This subsection establishes protection standards for aquatic FWHCAs including a site-specific procedure for sizing buffers and tree protection zones.

Aquatic FWHCAs are those that contain or are inundated with water at some time during a normal year as follows:

- Streams.
- Lakes.
- Naturally occurring ponds that provide fish and wildlife habitat.
- Shellfish areas.
- Kelp and eelgrass beds.
- Spawning and holding areas for forage fish.
- Mudflats.
- Intertidal habitats with vascular plants.
- Pocket beaches.
- Bluff backed beaches including associated feeder bluffs.
- Areas with which the following have a primary association: brown pelican; common loon; marbled murrelet; peregrine falcon; southern resident orca; Steller sea lion; humpback whale; gray whale; sea otter; designated stocks of steelhead and chinook and chum salmon; bocaccio rockfish; canary rockfish; yelloweye rockfish; black oystercatcher; great blue heron; and pigeon guillemot.

A Biological Assessment (BA) has been prepared by Fairbanks Environmental Services. It was recently revised (October 24, 2017). The BA identifies ESA listed species, their critical habitat and habitat identified by the San Juan County Critical Areas Ordinance and determinations of effects in the following table from Exhibit 6, page 2:

Table 1 Summary of effect determination on ESA listed species and critical habitat.

SPECIES	EFFECT	TAKE
Marbled murrelet (<i>Brachyramphus marmoratus</i>)	NLTAA*	None
Marbled murrelet critical habitat	Not applicable	
Coastal Puget Sound Bull trout (<i>Salvelinus confluentus</i>)	No Effect	None
Coastal Puget Sound Bull trout critical habitat	Not applicable	
Puget Sound ESU chinook salmon (<i>Oncorhynchus tshawytscha</i>)	NLTAA	None
Puget Sound ESU chinook salmon critical habitat	Will not adversely modify	
Hood Canal summer-run chum salmon (<i>Oncorhynchus keta</i>)	No Effect	None
Hood Canal summer-run chum salmon critical habitat	Not applicable	
Puget Sound Steelhead trout (<i>Oncorhynchus mykiss</i>)	No Effect	None
Bocaccio rockfish (<i>Sebastes paucispinis</i>)	NLTAA	None
Yelloweye rockfish (<i>Sebastes ruberrimus</i>)	NLTAA	None
Southern resident killer whale (<i>Orcinus orca</i>)	NLTAA	None
Southern resident killer whale critical habitat	Will not adversely modify	
Humpback whale (<i>Megaptera novaeangliae</i>)	NLTAA	None
Streaked horned lark (<i>Eremophila alpestris strigata</i>)	No Effect	None
Streaked horned lark critical habitat	Not applicable	
Yellow-billed cuckoo (<i>Coccyzus americanus</i>)	No Effect	None
Yellow-billed cuckoo critical habitat	Not applicable	

NLTAA: Not Likely to Adversely Affect.

The BA also includes conservation/mitigation measures to avoid and minimize impacts to these species and their habitats, Exhibit 6, page 41.

G. Standards and Requirements for Shoreline Modifications. Shoreline modifications, including shoreline stabilization measures, are allowed within and over aquatic FWHCAs and their buffers subject to this section and Chapter 18.50 SJCC. These requirements remain in effect until they are replaced with an approved comprehensive update of the Shoreline Master Program. Unless specifically allowed by this section and Chapter 18.50 SJCC, construction of new shoreline modifications is prohibited.

1. General Standards.

- a. Definitions. Definitions applicable to this subsection (G) are found in RCW 90.58.030 and WAC 173-26-020 and 173-27-030.
- b. Mitigation Sequencing. Per WAC 173-26-201(2)(e), adverse impacts associated with new, expanded or replacement shoreline modifications must be mitigated consistent with the requirements of SJCC 18.35.020 through 18.35.050 and the following mitigation sequence:
 - i. Avoiding the impact altogether by not taking the action or part of the action.
 - ii. Minimizing impacts by limiting the degree or magnitude of the action and its implementation by using appropriate technology or by taking affirmative steps to avoid or reduce impacts.
 - iii. Rectifying the impact by using appropriate technology or by repairing, rehabilitating or restoring the affected environment.
 - iv. Reducing or eliminating the impact over time by preservation and maintenance operations.
 - v. Compensating for the impact by replacing, enhancing or providing substitute resources or environments.
 - vi. Monitoring the impact and compensation projects and taking appropriate corrective measures.

Three separate dive surveys were conducted to evaluate eelgrass and macroalgae. The first dive survey was conducted on March 8, 2014, August 20, 2014, and August 24, 2017 show sparse areas of ulva, fucus, and kelp within 25 feet of the proposed dock location. Eelgrass was found both north and south of the proposed dock. According to Appendix D of the Exhibit 6,

"The proposed float, ramp and fixed pier will be located in an area that is void of eelgrass and significant community of attached macroalgae. Prior to construction a diver will locate the centerpoint of the waterward end of the float to ensure that the edge of the float is placed at least 25 feet from the margins of both the north and south eelgrass bed. The margins of the eelgrass bed will be marked so that construction team will avoid operating construction vessels near the eelgrass beds. Placement and construction of the proposed dock and private navigation buoy can be completed in such a manner as to avoid and minimize impacts to the eelgrass and macroalgae community."

Additionally, Conservation Measure 10 in the BA states that:

- a. *The construction barge will not be allowed to ground in the Project area.*
- b. *Propwash will not be directed toward eelgrass bed that are mapped near the Project area.*
- c. *Barge anchors and cables will not be placed in the eelgrass bed that is mapped to the south of the dock alignment.*

The careful placement of the float, ramp and pier and these proposed conservation measures comply with b.ii, above by minimizing impacts by limiting the degree or magnitude of the action and its implementation by taking affirmative steps to avoid or reduce impacts.

The proposed dock will be located in area that is designated as a migratory route for Southern Resident Killer Whales (SRKW), Chinook salmon and Bald eagles. The dock will be in a cove that is likely too shallow for the SRKW. It will not be allowed to ground due to stops so it won't create a barrier to migrating juvenile Chinook salmon.

Because the protection of eelgrass relies on operational standards for boating, submittal of an monitoring and mitigation plan to the Department of Community Development should be required. The monitoring should be conducted via dive survey meeting WDFW guidelines and the mitigation plan must address mitigation in the event that annual monitoring demonstrates loss of eelgrass beds surveyed as compared to the conditions surveyed in the Biological assessment (Exhibit 6).

There is chance that salinity of the brine discharged from the system could impact eelgrass, macroalgae, macroinvertebrates or benthic organisms if it does not dilute as expected. The salinity should be monitored to ensure that it does not exceed normal salinity levels beyond three (3) feet from the pipe as indicated in the Biological Assessment (Exhibit 6). Monitoring of salinity and mitigation, if necessary, should be required to ensure no net loss of ecological functions.

2. Additional Standards for Docks.

- a. Private, noncommercial docks and associated piers and floats for individual residential use, or for community use by the owners of no more than four adjacent or nearby residences, will be permitted over critical salt and fresh water habitats if the application complies with the applicable federal and state regulations and shows that:
 - i. Avoidance of impacts to critical salt and fresh water habitats by an alternative alignment or location is not feasible; and
 - ii. The project, including any required mitigation, will result in no net loss of ecological functions associated with critical saltwater habitat.

The BA has shown that the proposed location avoids impacts to critical salt water habitats and that applying the conservation measures will provide mitigation that results in no net loss of ecological functions.

18.40.200 Desalination systems.

Standards for all desalination systems are provided in SJCC 18.50.350 and also apply to portions of systems that occur outside the shoreline jurisdiction.

Compliance with SJCC 18.50.350 is analyzed later in this report.

SJCC 18.50.070 Environmental impacts.

- A. The location, design, construction, and management of all shoreline uses and activities must protect the quality and quantity of surface and ground water adjacent to the site and must adhere to the policies, standards, and regulations of applicable water quality management programs and related regulatory agencies.

This proposal has been designed to protect water quality. Compliance with other regulatory agencies requirements will be required.

- B. Solid waste disposal and liquid waste treatment facilities are prohibited on shorelines. Solid and liquid wastes, biosolids, and untreated effluents shall not be allowed to enter any bodies of water or to be discharged onto land.

Not applicable.

- C. The release of oil, chemicals or hazardous materials onto land or into the water contrary to state or federal law is prohibited. Equipment for the transportation, storage, handling or application of such materials in association with a lawful shoreline use must be maintained in a safe and leak-proof condition. If there is evidence of leakage, the further use of such equipment shall be suspended until the deficiency has been satisfactorily corrected.

The Spill Prevention, Containment and Control Plan has been designed to prevent the release of pollutants and to handle any accidental spills as discussed above. Compliance with that plan is a requirement if this proposal is approved.

- D. All shoreline uses and activities shall be located, designed, constructed, and managed in a manner that minimizes adverse impacts to surrounding land and water uses and must be aesthetically compatible with the affected area.

The BA has shown that there will likely be no adverse impacts from this proposal. It contains conservation measures to protect and minimize adverse impacts.

- E. All shoreline uses and activities must utilize effective erosion control methods during construction and operation. Proposed methods must be included in the project description submitted with any permit application.

Appropriate erosion control methods have been included with the application materials.

- F. All shoreline uses and activities must be located, designed, constructed, and managed to avoid disturbance of and minimize adverse impacts to fish and wildlife resources, including spawning, nesting, rearing and habitat areas, and migratory routes.

The BA has shown that adverse impacts to fish and wildlife resources, including spawning, nesting, rearing and habitat areas, and migratory routes have been minimized.

- G. All shoreline uses and activities must be located, designed, constructed, and managed to minimize interference with natural shoreline processes such as water circulation, sand and gravel movement, erosion, and accretion.

Mitigation measures are proposed to minimize adverse impacts on marine life. The dock will not affect the shore process corridor because there will be no grounding of the float that might obstruct the flow of water under the dock or the movement of marine life.

- H. Land clearing, grading, filling, and alteration of natural drainage features and land forms must be designed to prevent maintenance problems or adverse impacts to adjacent properties or shoreline features.

No clearing, grading, filling and alteration of natural drainage features and land forms is proposed.

- I. All shoreline developments must be located, constructed, and operated so as not to be a hazard to public health and safety.

Not applicable.

- J. All shoreline uses and activities must be located and designed to minimize or prevent the need for shoreline defense and stabilization measures and flood protection works, such as bulkheads, other bank stabilization, landfills, levees, dikes, groins, jetties, or substantial site regrades.

This proposal does not include shoreline defense and stabilization measures or flood protection works. It does not appear that the proposal will create a need for such protection, but it is located in a relatively high energy wave environment. To meet this standard, there should be a condition of approval that limits future shoreline stabilization, defense and flood protection works.

- K. Herbicides and pesticides may not be applied to or allowed to directly enter water bodies or wetland unless approved for such use by the appropriate agencies.

Not applicable.

SJCC 18.50.150 Water quality.

- A. During and after construction, all shoreline developments shall minimize any increase in surface runoff through control, treatment, and release of surface water runoff so that the receiving water quality and shore processes are not adversely affected. Control measures include dikes, catch basins or settling ponds, oil interceptor drains, grassy swales, planted buffers, and fugitive dust controls. All surface water shall be retained on site unless discharge to road ditches or other drainage channels is approved in writing by the County engineer.
- B. All industrial, institutional, commercial, residential, recreational, and agricultural uses shall adhere to all required setbacks, buffers, and standards for stormwater. (Refer to shoreline use and environment designation regulations for specific limits.)
- C. All shoreline development must comply with the applicable requirements of the Stormwater Management Manual for the Puget Sound Basin or a County-approved program that meets or exceeds the requirements of the manual. (See also SJCC 18.60.060(B) and (C) and 18.60.070.)

The mitigation measures are proposed to address these standards and should be required.

SJCC 18.50.190 Boating facilities.

- A. Exemptions. Docks, as specified in SJCC 18.50.020(F), are exempt from the requirement for a shoreline substantial development permit pursuant to RCW 90.58.030(3)(e)(vii) and WAC 173-27-040(2)(h).
- B. General Regulations.
1. Boating facilities shall be designed to minimize adverse impacts on marine life and the shore process corridor and its operating systems.

Mitigation measures are proposed in Section 9 of Exhibit 6 to minimize adverse impacts on marine life. The dock will not affect the shore process corridor because there will be no grounding of the float that might obstruct the flow of water under the dock or the movement of marine life.

2. Boating facilities shall be designed to make use of the natural site configuration to the greatest possible degree.

Although the access road isn't part of the natural site configuration, it does exist on site. It is the only form of access to the shore, so utilizing it to access the dock requires no added removal of vegetation nor additional excavation. The placement of the dock in a protected cove utilized the natural site configuration.

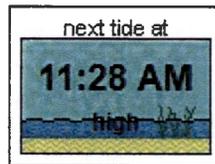
3. All boating facilities shall comply with the design criteria established by the State Department of Fish and Wildlife relative to disruption of currents, restrictions of tidal prisms, flushing characteristics, and fish passage to the extent that those criteria are consistent with protection of the shore process corridor.

Hydraulic Project Approval (HPA) will be required from the Department of Fish and Wildlife. For them to approve the dock, the applicants will have to submit materials showing they comply with the appropriate design criteria.

4. Areas with poor flushing action shall not be considered for overnight or long term moorage facilities.

There are no studies to show that this is or is not an area of poor flushing. However, the range of tides over a 24 hour period suggest that currents carry large volumes of water that provide adequate flushing. For example, on December 12, 2017, the NOAA Tide Predictions in the vicinity of Kanaka Bay, which is approximately one mile north of the proposed dock site, were:

Today's Tides (LST/LDT)



12:06 AM	high	4.52 ft.
4:07 AM	low	3.34 ft.
11:28 AM	high	7.99 ft.
7:05 PM	low	1.83 ft.

5. In general, only one form of moorage or other structure for boat access to the water shall be allowed on a single parcel: a dock or a marine railway or a boat launch ramp may be permitted subject to the applicable provisions of this code. (A mooring buoy may be allowed in conjunction with another form of moorage.) However, multiple forms of moorage or other structures for boat access to the water may be allowed on a single parcel if:
 - a. Each form of boat access to water serves a public or commercial recreational use, provides public access, is a part of a marina facility, or serves an historic camp or historic resort; or
 - b. The location proposed for multiple boat access structures is common area owned by or dedicated by easement to the joint use of the owners of at least 10 waterfront parcels.

Only one form of moorage is proposed for this parcel. It will serve multiple parcels.

6. Structures on piers and docks shall be prohibited, except as provided for marinas in subsection (H) of this section.

No structures are proposed.

C. General Regulations—Docks, Piers, and Recreational Floats.

1. Multiple use and expansion of existing facilities are preferred over construction of new docks and piers.

There are no private docks existing in the vicinity. Roche Harbor Resort, Jensen's Marina, and Snug Harbor Resort were all contacted on January 30, 2017 to see if they had available moorage for four boats ranging in size between 20 and 35 feet in length. Roche Harbor responded that there will be no moorage available for between 10 and 15 years for 30 foot boats. Jensen's Marina indicated they have only one covered space to accommodate a boat up to 25 feet in length with a narrow beam. There were not enough slips available to accommodate all four boats. Snug Harbor Resort has availability for only two boats in the 28 foot and under range.

The Port of Friday Harbor was contacted on February 24, 2017 regarding availability for four boats. They did have moorage for boats 20 feet, 24 feet and 40 feet. They do not have anything available for boats ranging between 28 feet and 35 feet.

No marina has moorage available for boats ranging between 28 feet and 35 feet.

2. Mooring buoys shall be preferred over docks and piers on all marine shorelines except in the cases of port, commercial, or industrial development in the urban environment.

The applicants indicate that use of mooring buoys at this site would be more harmful than a community dock. See Exhibit 5, page 14 of 35. They would need four buoys to get the amount of moorage they are requesting. The DNR limits the amount of buoys per acre to four. They will also not license buoys that will ground out at low tide. This means the buoys would be placed further seaward than what is required from a safety standpoint due to the need to place the boats in an area with an appropriate water depth and away from the rock outcroppings in an area that is not protected from storm waves.

Buoys would also require construction of an area on the uplands above EHT to safely store four dinghies. They would require clearing an area approximately 360 square feet of native vegetation and the installation of a pulley system to get the dinghies up and over the driftwood line to the storage area. It would likely preclude the removal of the eight creosote piles because it would not be necessary to remove them.

3. Moorage floats, unattached to a pier or floating dock, are preferred over docks and piers.

The same issues that apply to mooring buoys in #2, above, apply to moorage floats.

4. Every application for a substantial development permit for dock or pier construction shall be evaluated on the basis of multiple considerations, including but not necessarily limited to the potential impacts on littoral drift, sand movement, water circulation and quality, fish and wildlife, navigation, scenic views, and public access to the shoreline.

There will be no impacts to littoral drift because the proposed dock will not obstruct water circulation or sand movement patterns. The dock structure will be 10.5 feet above MLLW. Stops will prevent the float from grounding thus eliminating any barrier to migration. Water, fish and other marine animals will be able to circulate under and around the dock. Impacts to fish and wildlife have been reviewed in the Biological Assessment and found to have no adverse impacts.

The proposed dock will be located in a cove that wouldn't normally be utilized by other recreational power boaters so navigation won't be impacted. There is no public access to the shoreline at this site, so public access will not be impacted.

5. Docks or piers which can reasonably be expected to interfere with the normal erosion-accretion process associated with feeder bluffs shall not be permitted.

This is not an area of feeder bluffs.

6. Abandoned or unsafe docks and piers shall be removed or repaired promptly by the owner. Where any such structure constitutes a hazard to the public, the County may, following notice to the owner, abate the structure if the owner fails to do so within a reasonable time and may impose a lien on the related shoreline property in an amount equal to the cost of the abatement.

This should be a condition of approval.

7. Unless otherwise approved by shoreline conditional use permit, boats moored at residential docks shall not be used for commercial overnight accommodations.

The applicants have no plans to use the dock for commercial overnight accommodations.

8. Use of a dock for regular float plane access and moorage shall be allowed only by shoreline conditional use permit and shall be allowed only at commercial or public moorage facilities or at private community docks.

The applicants have no intention of using the dock for regular float plane access and moorage.

D. Regulations—General Design and Construction Standards.

1. Pilings must be structurally sound prior to placement in the water.

Eight of the proposed pilings will be galvanized steel and four will be epoxy coated steel. They will all be structurally sound prior to installation.

2. Chemically treated or coated piles, floats, or other structural members in direct contact with the water shall be as approved by the Environmental Protection Agency.

ACZA pressure treated wood will be used to construct the frame of the float.

3. Pilings employed in piers or any other structure shall have a minimum vertical clearance of one foot above extreme high water.

The proposed pilings will have a minimum clearance of at least two feet above the water level at extreme high tide (EHT). Extreme high tide for this area is 14.30 feet.

4. All floats shall include stops which serve to keep the bottom off tidelands at low tide.

Stops are included in the plans.

5. When plastics or other nonbiodegradable materials are used in float, pier, or dock construction, full containment features in the design of the structures shall be required.

The float will be constructed with foam encased entirely in a molded plastic tub. No other non-biodegradable material will be used to construct the dock.

6. Overhead wiring or plumbing is not permitted on piers or docks.

The proposed dock does not include overhead wiring or plumbing. Electrical and water lines will be placed in conduit attached to the side of or under dock decking until reaching the float where they will connect with a hose bib and electrical outlet for use by boat owners. Utility lines for the proposed RO system will be attached to the underside of the fixed pier section of the dock if it is approved.

7. New boathouses or covered moorages are prohibited on floats, piers, and docks. Other structures on floats, piers, and docks shall be limited to three feet in height.

No boathouses or covered moorages are proposed.

8. A pier shall not extend offshore farther than 50 feet beyond the extreme low tide contour.

The seaward end of the pier is located 15 feet landward of the extreme low water contour.

9. Dock lighting shall be designed to shine downward, be of a low wattage, and shall not exceed a height of three feet above the dock.

Dock lighting is not proposed. The aesthetic impacts and impacts to fish and wildlife habitat of dock lighting was not considered with this application and should thus not be allowed. This should be a condition of approval.

10. All construction-related debris shall be disposed of properly and legally. Any debris that enters the water shall be removed promptly. Where feasible, floats shall be secured with anchored cables in place of pilings.

All construction debris will be removed and loaded into a 20 cubic yard steel garbage container secured on the crane barge for holding during construction, then transported by the crane barge to the contractor's Seattle yard, off-loaded into trucks and shipped to an approved upland disposal site.

11. Materials used in dock construction shall be of a color and finish that will blend visually with the background.

Construction materials will remain unpainted and in a natural condition (wood, aluminum and galvanized steel) with colors resembling earth tones.

E. Regulations—Joint-Use Community Piers, Docks, and Floats.

1. No more than one moorage facility shall be allowed as an accessory to any hotel, motel, multifamily residential development, or similar development.

The proposed dock is the only moorage facility planned for these three adjacent shoreline properties.

2. Proposals for joint-use community piers and docks shall demonstrate and document that adequate maintenance of the structure and associated upland area will be provided by identified responsible parties.

Generally a joint-use dock would be accompanied by some sort of joint use agreement that would provide for maintenance of the dock. Since this dock would serve a family compound, no joint-use agreement is proposed. However, if in the future the applicants decided to sell one or more parcels and a joint-use agreement became necessary, such maintenance provisions would be included.

3. Recreational floats shall be placed offshore no farther than 200 feet beyond extreme low tide, the minus-3 fathom contour, or the line of navigations, whichever is closest to shore.

This is not a proposal for a recreational float.

4. All waterfront subdivisions

This is not a waterfront subdivision.

5. The dimensional standards in subsection (G)(2) of this section shall apply.

See analysis below.

- F. Regulations—Commercial/Industrial Docks.

This is not a commercial/industrial dock.

- G. Docks—Residential Docks.

1. New Shoreline Subdivisions.

This is not a subdivision.

2. Size and Dimensions of Docks, Piers, and Floats.

- c. The maximum dimensions for a joint-use community dock (including pier, ramp, and float) associated with more than two single-family residences shall not exceed 2,000 square feet in total area. In addition, the length of the dock (including the pier, ramp, and float) may not extend more than 300 feet in length seaward of the ordinary high water mark. If a variance is granted to allow a dock exceeding these dimensions, its construction may only be authorized subject to the regulations for a marina.

The total area of the dock is 1,577.8 square feet. The total length of the dock is approximately 260 feet. The proposal is compliant with this standard.

- H. Regulations—Marinas.

This is not a marina.

- I. Regulations—Boat launches (including marine railways).

This is not a boat launch or a marine railway.

- J. Mooring buoys.

1. Buoys shall not interfere with navigation and shall be visible in daylight 100 yards away. Buoys shall have reflectors for night visibility.

2. Mooring buoys shall be installed so as not to interfere with or obstruct legally existing piers, docks, floats, or other buoys.

A "Danger Rocks" buoy is proposed 95 feet seaward from the seaward end of the floats to warn of rocks that may be a navigation hazard during extreme low tide events. It should be required to meet these standards so as not to be a hazard to boaters.

K. Regulations by Environment.

1. Urban. NA
2. Rural. NA
3. Rural Residential and Rural Farm Forest. Boat launches, marine railways, and boathouses associated with them may be allowed as conditional uses only. **Other boating facilities serving single-family residences, and community docks, shall be permitted in these environments subject to the policies and regulations of this SMP.** Marinas shall not be permitted; however, the expansion or alteration of a marina legally established prior to the effective date of this code may be allowed subject to the policies and regulations of this SMP.
4. Conservancy. NA
5. Natural. NA
6. Aquatic. Marina facilities, docks, and boat launches which are shoreline dependent shall be permitted in the aquatic environment subject to the policies and regulations of this SMP and to the regulations by environment applicable to the abutting shoreline area. Where a proposed boating facility abuts more than one shoreline environment, the policies and regulations for the most restrictive abutting environment shall govern.

The project lies in the Rural Farm Forest and Aquatic shoreline designation. Both environments permit residential docks.

SJCC 18.50.350 Utilities

A. Regulations—General.

SJCC 18.20.210 defines "utilities" as facilities serving the public through a network of wires or pipes, and ancillary structures thereto, including systems for the delivery of natural gas, electricity, cable TV, and telecommunications services. A residential desalination system isn't considered a utility, so items 1-5 below don't apply to this proposal.

1. In shoreline areas, utility transmission lines, pipelines, and cables must be placed underground unless demonstrated to be infeasible. Further, such lines must utilize existing rights-of-way whenever possible. Proposals for new corridors in shoreline areas involving water crossings must fully substantiate the infeasibility of existing routes.
2. Utility development must, through coordination with government agencies, provide for compatible multiple use of sites and rights-of-way. Such uses include shoreline access points, trails, and other forms of recreation and transportation systems, providing such uses will not unduly interfere with utility operations of endanger public health and safety.
3. Sites disturbed for utility installation must be stabilized during and following construction to avoid adverse impacts from erosion.

4. Immediately following the completion of utilities installation of maintenance projects on shorelines, disturbed areas must be restored to project configurations, replanted with local vegetation, and the vegetation maintained until it is firmly established.
5. Utility lines, pipes, stations, plants, and other apparatus shall not be installed in shoreline areas unless there is no feasible alternative.
6. Utility lines shall be installed underground. Desalination intake and discharge lines shall be located underground wherever feasible, except for that portion located underneath or along any docks, piers, walkways, stairs, or other shoreline improvements located on the site.

The intake and discharge lines will be installed underground, except that portion located on the pier, ramp and float.

7. Underwater cables which must cross shorelines shall be installed underground from the water line to the tree line, unless otherwise authorized by the County. The County shall authorize variances from this regulation only for good cause.

This is not an underwater cable.

8. Where installation of utility lines, pipes, or other apparatus in shoreline areas is approved, clearing shall be confined to that which is absolutely necessary to permit the installation and to prevent interference by vegetation once the system is in operation.

The proposal meets this regulation.

9. Where utility lines, pipes, or other apparatus must cross shoreline areas, they shall do so by the route which will cause the least damage to the shoreline, both physically and visually.

The intake and discharge lines will be located within a proposed dock system or support piles and along an existing path. Stormwater construction methods will be used during construction to control erosion and pollution along the shoreline. Any disturbed areas will be re-vegetated with native vegetation to pre-project like conditions.

10. Drainage and surface runoff from utility installation areas shall be controlled so that pollutants will not be carried into water bodies.

The twelve elements of Minimum Requirement #2, Stormwater Pollution Prevention Plan, will be followed during construction.

11. Applications for outfalls and underwater pipelines that transport substances harmful or potentially harmful to aquatic life or water quality shall not be approved unless the applicant has demonstrated that no significant adverse impacts will result. Desalination and reverse osmosis brine discharge is not considered to be potentially harmful to aquatic life or water quality provided all required state and federal requirements are met.

This is not an application for an outfall or underwater pipeline.

B. Regulations—Desalination.

1. Desalination lines must be located along existing paths, trails, or connected to existing docks and beach access structures wherever feasible.

The seawater intake, brine discharge and electrical lines will be located underground in a 2.5 foot wide by 3 foot deep by 1,030 foot long trench that will extend from the flushing valve vault mounted on the shore just above the beach up to an existing barn located about 600 feet landward of the OHWM, where the saltwater treatment house will be located. The trench will extend along the side of the existing beach access road until it reaches the top of the bank. Then the trench will extend further landward through an in an existing development area to the treatment house. Seaward of the flushing valve vault, the utility lines will either be attached to the bottom of the fixed pier portion of the proposed community dock (preferred Alternative 1) or will be submerged about 2.5 feet below the seafloor until they reach the -0 tidal elevation where they will emerge and be anchored to the seafloor via earth anchors (Alternative 2).

2. Desalination and reverse osmosis systems on shorelines that are known or demonstrated to be eroding bluffs, unstable bluffs, eroding beaches, or exposed cliffs, will require design and engineering which will assure that no significant visual or environmental impacts will be created and that effects on the natural shoreline conditions will be minimized.

This is not an area of eroding or unstable bluffs, eroding beaches, or exposed cliffs. It is mapped as bedrock. Except where lines may be attached to the dock, the rest of the lines will be underground and not visible. Application of the Conservation Measures will minimize or avoid environmental impacts on the natural shoreline.

3. All desalination and reverse osmosis production equipment and necessary pumping equipment, utility connections, and pipelines must be located and designed to blend in with the natural surroundings to the extent feasible to reduce visual impacts. Existing vegetation and terrain features must be used whenever possible for screening.

The intake and return pipes will be located on the inside of the dock and the upland pipes will be underground so visual impacts will be minimized. No vegetation will be removed. The treatment building will be screened by existing vegetation and the storage tank will be buried.

4. Desalination and reverse osmosis facilities must not impede public access to public tidelands or materially interfere with normal public use of public waters.

No part of the proposal will impede public access on the tidelands.

5. Desalination and reverse osmosis systems will not be allowed for the purposes of providing the primary water supply within new subdivisions and short subdivisions. Such facilities may be allowed for the purpose of supplying water for an established community water system.

The proposal is for a secondary water source to serve three existing parcels of record where the existing well does not supply an adequate supply

6. Desalination intake and discharge lines shall be located underground wherever feasible, except for that portion located underneath or along any docks, piers, walkways, stairs, or other shoreline improvements located on the site.

The proposal is consistent with this requirement.

7. Desalination and reverse osmosis brine discharge is not considered to be potentially harmful to aquatic life or water quality provided all required state and federal requirements are met.

All required regulations will be met. Hydraulic project approval will be required if this proposal is approved.

8. All desalination and reverse osmosis installations shall comply with the following regulations:
 - a. The intake and discharge lines must be trenched, run, or located together except where necessary to provide adequate separation between intake and discharged water.
 - b. The intake and discharge lines must be engineered so as to not materially interfere with normal public use of public tidelands or navigation. The intake point shall not float on the surface.
 - c. Intake and discharge lines must not be placed through or over any known or discovered archaeological resources, unless the location is approved by the Washington Office of Archaeology and Historic Preservation.
 - d. The use of existing wells with salt water contamination or intrusion as the intake source for desalination or reverse osmosis systems is prohibited unless specifically authorized by the County department of health and community services.
 - e. The use of pre-filtration beach wells located landward of the line of mean lower low water is allowed provided all state and federal requirements are met.

The proposal is consistent with these regulations.

C. Regulation by Environment.

1. Urban. Utility facilities shall be permitted in the urban environment subject to the policies and regulations contained in this master program.
2. Rural, Rural Residential, and Rural Farm Forest. Same as urban.
3. NA
4. NA
5. Aquatic. Utility transmission and collection facilities shall be permitted in the aquatic environment subject to the policies and regulations contained in this master program provided, that no feasible alternative exists. Desalination and reverse osmosis systems shall be permitted in the aquatic environment subject to the policies and general regulations contained in this master program.

SJCC 18.80.110 Shoreline permit and exemption procedures.

A. Purpose and Applicability.

1. This section includes the procedures necessary to ensure that the provisions of the Shoreline Master Program (Element 3 of the Comprehensive Plan and Chapter 18.50 SJCC) are implemented and enforced, and to ensure that all persons affected by the master program are treated in a fair and equitable manner.
2. This section applies to all lands and waters within the jurisdiction of the master program and to all persons and agencies as described in Chapter 18.50 SJCC.
3. The following are referred to as "shoreline permits" and are subject to this review process:
 - a. Shoreline substantial development permits.
 - b. Shoreline conditional use permits, which include:
 - i. Uses which are permitted under the provisions of the master program only as conditional uses;
 - ii. The expansion of nonconforming uses; and
 - iii. Uses which are unnamed or not contemplated in the master program.
 - c. Shoreline variances.

This application is for a shoreline substantial development permit.

- B. Notice of Application for Shoreline Permit.
1. Notice of application and public hearing is required for shoreline permit applications as provided in SJCC 18.80.030 and 18.80.040.

Notice was properly completed.

2. The administrator shall submit notice of shoreline permit applications to the appropriate subcommittee (by commissioner district) of the planning commission.

Not applicable.

3. Applications for shoreline permits shall be circulated to the director of the University of Washington Friday Harbor Laboratories for comment as a reviewing agency.

This was completed.

- C. Administrative Responsibilities. The administrator's responsibilities are set forth in SJCC 18.50.010(E).

- D. Consolidated Permit Processing.

1. For a proposal that involves two or more shoreline permits and/or other project permits, such applications shall be consolidated under the "highest" procedure (i.e., the right-most applicable column in Table 8.1) required for such permits or processed individually under each of the procedures identified by this code. The applicant may request the consolidation of hearings with other local, state, regional, federal or other agencies in accordance with RCW 36.70B.090 and 36.70B.110. (See also SJCC 18.80.020(B)(2), Consolidated Permit Processing, and SJCC 18.80.140(H), Consolidated Appeal Hearings.)
2. The decisionmaker shall provide copies of the findings of facts for all shoreline permits handled in accordance with this section to the board of County commissioners and the planning commission.

- E. Decisionmaking Authority. The hearing examiner has authority to take the following actions:

1. Based upon the criteria in subsection (H) of this section, hear and issue or deny shoreline permits following receipt of the recommendations of the administrator, and to impose conditions of approval on such permits; and
2. Grant or deny variances from the provisions of the master program according to the criteria and procedures provided in subsection (I) of this section.

This is not a variance.

- F. Exemptions from Need for Shoreline Substantial Development Permit.

This is not exempt from the need for a shoreline substantial development permit.

- G. Shoreline Permits – Administrative Actions.

1. The administrator shall review shoreline permit applications, and building permit applications that also require a shoreline permit, for consistency with the policies and regulations of the master program, and report the results of this review and determination to the hearing examiner. In making this determination, the administrator shall consider the ultimate scope of a development and the extent to which the development is consistent with the policies and regulations of the SMA and master program. The administrator may request additional information from the applicant and may make site inspections, if necessary.

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2. The administrator shall not issue a building permit for development that is subject to shoreline permit requirements until a shoreline permit has been granted. Any building permit issued for such development shall be subject to the conditions attached to approval for the shoreline permit.
 3. In granting a shoreline permit, the hearing examiner may attach such conditions as deemed necessary to ensure that the development will be consistent with the master program and other applicable provisions of this code. The examiner shall also prepare findings of fact and conclusions of law.
 4. In approving shoreline conditional use permits, the hearing examiner is authorized, on a case-by-case basis, to impose any special conditions or standards which are reasonable and necessary to enable a proposed conditional use to satisfy the criteria established in subsection (J) of this section.
 5. Filing with the Washington Department of Ecology (WDOE). Within eight days of the final decision, the administrator will file with WDOE copies of the permit application and other pertinent materials used in the final decision pursuant to either Chapters 43.21C or 90.58 RCW, the permit, and any other written evidence of the final order of the hearing examiner relative to the application. Filing shall not be complete until the materials have actually been received by the WDOE. For shoreline conditional use permits or shoreline variances, the date of filing of the County decision shall begin the period for WDOE review and final permit decision as described in subsection (L) of this section.
 6. If no final action is taken on a shoreline permit application one year from the date of filing of the application due to inaction by the applicant, the application shall expire and be considered void. A new application and fees shall be required for continuation of the permit process.
 7. Construction or substantial progress toward construction of a project for which a shoreline permit is granted must be undertaken within two years after the permit approval. Substantial progress toward construction shall include the letting of bids, making of contracts, purchase of materials involved, utility installation and site preparation, but shall not include use or development inconsistent with the master program or the terms of permit approval. However, the two-year period shall not include time during which development could not proceed due to reasonable related administrative appeals or litigation, nor include time necessary to obtain other required permits for the project from state and federal agencies. The hearing examiner may, with discretion, extend the two-year time period for a reasonable time.
 8. Unless specified otherwise in permit conditions, all development authorized by a shoreline permit shall be completed within five years of the date of permit approval or the permit shall become null and void. A permittee may request a time extension before the permit expires by making a written request to the administrator, stating the reasons. The hearing examiner will review the permit, and upon a finding of good cause:
 - a. Extend the permit for one year; or
 - b. Terminate the permit.However, nothing in this section shall preclude the hearing examiner from issuing shoreline permits with a fixed termination date of less than five years.
- H. Criteria for Approval of Substantial Development Permits. A shoreline substantial development permit shall be granted by the County only when the applicant meets his burden of proving that the proposal is:
1. Consistent with the policies of the Shoreline Management Act and its implementing regulations, Chapter 90.58 RCW and Chapter 173-27 WAC, as amended;
 2. Consistent with the policies and regulations of the Shoreline Master Program in Chapter 18.50 SJCC;
 3. Consistent with this chapter;
 4. Consistent with the applicable sections of this code (e.g., Chapter 18.60 SJCC);

5. Consistent with the goals and policies of the Comprehensive Plan; and
6. All conditions specified by the hearing examiner to make the proposal consistent with the master program and to mitigate or avoid adverse impacts are attached to the permit.

This proposal meets all of the above criteria for approval. The Shoreline Master Program, Chapter 18.50 SJCC, was adopted pursuant to RCW 90.58.140(3) and 90.58.200, the Shoreline Management Act of 1971, Chapters 173-26 and 173-27 WAC, and Element 3 of the Comprehensive Plan. It was shown above that it is consistent with other applicable sections of the code.

- I. Shoreline Variances. *This is not an application for a shoreline variance.*
- J. Shoreline Conditional Use Permits. *This is not an application for a shoreline conditional use permit.*
- K. Nonconforming Uses. *This is not a nonconforming use.*
- L. Washington Department of Ecology Review. As required by state law (RCW 90.58.140(10)), shoreline variances and shoreline conditional use permits are subject to review by the Washington Department of Ecology for its approval or disapproval. Upon approval or denial of shoreline variances or conditional use permits by the hearing examiner or board of County commissioners, a copy of the final order and application shall be mailed to the Washington Department of Ecology within five days of such action. Construction pursuant to the permit shall not begin and is not authorized until 21 days from the date of filing as defined in RCW 90.58.140(6) and WAC 173-27-130 or until all review proceedings initiated within 21 days from the date of such filing have been terminated; except as provided in RCW 90.58.140.

This will be done when a decision is made.

- M. Procedures for Revisions to Shoreline Permits.

This is not a revision to an existing permit.

- N. Rescission of Shoreline Permits. Any shoreline permit may be rescinded by the hearing examiner pursuant to RCW 90.58.140(8) upon the finding that the permittee has failed to comply with the terms and conditions thereof. In the event that the permittee is denied a required sewage disposal, building, or other permit necessary for the project in question, the shoreline permit may be rescinded by the hearing examiner. In the event a shoreline permit is rescinded by the hearing examiner, the permittee shall be notified by certified mail. Copies of the examiner's final action shall be filed with the Washington Department of Ecology.

- O. Appeals.

1. The BOCC has authority to hear and decide appeals from decisions of the hearing examiner on shoreline permit applications as provided in SJCC 18.80.140.
2. Any person aggrieved by a BOCC action granting, denying, or rescinding a permit for a use or development on the shorelines of the state pursuant to RCW 90.58.140 may seek review as provided by law.

This section no longer applies since the county Charter replaced the BOCC with a County Council and removed the requirement for appeals to be sent to them. Instead, if this project is appealed, it will go before the Washington State Shoreline Hearings Board.

- P. Effects on Property Values. As provided for in RCW 90.58.290, the restrictions imposed upon the use of real property through the implementation of the policies and regulations of the SMA and the master program shall be duly considered by the County assessor and the County board of equalization in establishing the fair market value of such properties.

CONCLUSION

SJCC 18.80.110(H) establishes the following criteria for approval of a Shoreline Substantial Development Permit:

1. The proposal is consistent with the policies of the Shoreline Management Act and its implementing regulations, Chapter 90.58 RCW and Chapter 173-27 WAC, as amended;
2. The proposal is consistent with the policies and regulations of the Shoreline Master Program in Chapter 18.50 SJCC;
3. The proposal is consistent with Chapter 18.80 SJCC in that all posting and notification requirements were met;
4. Consistent with the applicable sections of this code (e.g. Chapter 18.60 SJCC);
5. Consistent with the goals and policies of the Comprehensive Plan; and
6. All conditions specified by the hearing examiner to make the proposal consistent with the master program and to mitigate or avoid adverse impacts are attached to the permit.

STAFF RECOMMENDATION

Staff recommends approval of the proposed community dock, navigation buoy, and reverse osmosis desalination system because it is consistent with the policies and regulations of the Shoreline Master Program in Chapter 18.50 SJCC and the applicable requirements of the UDC, provided the following conditions are met:

1. Eelgrass and macroalgae shall be monitored in years 1, 3 and 5. Applicant shall submit an annual monitoring and mitigation plan to the Department of Community Development. The monitoring should be conducted via a dive survey meeting WDFW guidelines. In the event that annual monitoring demonstrates loss of eelgrass beds surveyed as compared to the conditions surveyed in the Biological Assessment (Exhibit 6), mitigation shall be proposed and implemented pursuant to the requirements of SJCC 18.35040.
2. Salinity of brine discharged from the RO desalination system shall not exceed 29 parts per thousand at a distance of three (3) feet from the discharge diffuser pipe. The salinity at a distance of three (3) feet from the discharge pipe shall be monitored by a qualified professional during a neap tide and during a tidal cycle with a minus tide. If salinity is measured higher than 29 parts per thousand at a distance of three (3) feet at any time during monitoring, then the facility shall cease operation until modified to maintain the required salinity levels. Monitoring results shall be submitted to the Department of Community Development. Monitoring shall occur within the first 6 months of operation.
3. To minimize aesthetic impacts and impacts to fish and wildlife, no lighting fixtures are allowed on the dock.
4. The dock is a private residential joint-use dock for the benefit of parcel numbers 353344008, 340433003 and 340411005. The applicants shall submit a joint use dock agreement to the Department of Community Development for review and approval prior to recording. No commercial use of the dock is allowed.
5. Future shoreline stabilization, defense works and flood hazard protection are not allowed to protect any portion of the dock or desalination system.

6. Abandoned or unsafe docks and piers shall be removed or repaired promptly by the owner. Where any such structure constitutes a hazard to the public, the County may, following notice to the owner, abate the structure if the owner fails to do so within a reasonable time and may impose a lien on the related shoreline property in an amount equal to the cost of the abatement.
7. To ensure that chemicals do not enter the water, RO membranes shall not be cleaned on site. They shall be replaced or sent to off-site to specialized membrane cleaning shops
8. The Conservation Measures listed in the *Orca Dreams Biological Assessment*, prepared by Fairbanks Environmental Services, dated October 24, 2017, Exhibit 6, shall be implemented and include:
 - 1) Timing limitations:
 - a. In-water work shall only be allowed from September 1 through March 1 for the protection of salmon and bull trout.
 - b. Work below the ordinary high water line shall not occur from March 2 through August 31 of any year for the protection of migrating juvenile salmonids.
 - 2) A qualified diver shall mark the margins of the eelgrass beds to ensure that the dock is positioned with a minimum 25-foot buffer from the eelgrass beds.
 - 3) Pile removal shall follow the EPA Best Management Practices for Pile Removal & Disposal (EPA 2007).
 - 4) A rubber cushion shall be placed between the vibratory pile driver and the pile to reduce the generation of both airborne and underwater noise.
 - 5) A collar shall be placed around existing creosote-treated piling prior to removal to capture sediment and minimize any increase of turbidity associated with pile removal.
 - 6) Observers qualified in identification of marine mammals and seabirds shall be on site during all pile removal, driving, and drilling operations to watch for presence or absence of killer whales, other marine mammals, and marbled murrelet within the 1.34-mile action area. During vibratory pile removal and driving, one land-based biologist shall monitor the area from the terminal work site, and one boat with a qualified PSO shall navigate along the boundary of the action area in a semicircular path. A 30-minute preconstruction marine mammal monitoring period shall be required before the first pile driving, pile removal, or drilling activity of the day. A 30-minute post-construction marine mammal monitoring period shall be required after the last pile driving, pile removal, or drilling activity of the day. If the construction personnel take a break between subsequent pile driving, pile removal, or drilling activities for more than 30 minutes, then additional pre-construction marine mammal monitoring shall be required before the next start-up of pile driving, pile removal, or drilling activities. If marine mammals are discovered near or within the action area, observers shall advise operators of their presence in order to abide by the shutdown procedure listed below. All presence/absence of marine mammals will be recorded and reported.

Pre-Construction Procedures:

- a. One observer shall be stationed at the top of the bluff at the promontory just south of the project site.
- b. Two additional observers shall be stationed in a boat and will be cruising in Haro Strait along the boundary of the 1.34-mile action area, or the 0.40-mile monitoring area if drilling operations are occurring.
- c. Observers shall communicate with the contractor with both cellular telephones and VHF radios. Communication check will occur daily.

Shutdown Procedures:

- a. If a killer whale or large whale is observed approaching or within the 1.34-mile action area, all pile driving or pile removal activities shall stop.

- b. If drilling operations are occurring, if a killer whale or large whale is observed approaching or within the 0.40-mile monitoring zone, drilling operations shall stop.
 - c. If a delay, power down, or shutdown occurs due to southern resident killer whale/s approaching or entering the 1.34-mile action area or 0.40-mile monitoring area for drilling, activities shall not resume until the SRKW (1) is observed to have left the action area or monitoring zone or (2) has not been seen or otherwise detected within the area for 30 minutes.
9. Excavation in the intertidal zone shall be completed 'in the dry' during low-tide events and when the work area is exposed. A small track hoe will be used to dig a trench for placement of pipes and electrical conduit between the valve vault and MLLW. The trench shall be filled before being inundated by the rising tides.
10. The following BMPs described in the Stormwater Management Manual for Western Washington Volume II; construction Stormwater Pollution Prevention (Ecology 2014) shall be followed to minimize the amount of fine sediment from entering marine water due to disturbance of soil in the RO desalination system work corridor.
 - a. BMP C101: Preserve Natural Vegetation
 - b. BMP C153: Material Delivery
 - c. BMP C230: Straw Bale Barrier
 - d. BMP C233: Silt Fence
 - e. BMP C235: Straw Wattles
11. The contractor shall have a prepared Spill Control and Countermeasure Plan (SCC Plan) that addresses specific actions to prevent petroleum products from being discharged into surface waters. Biodegradable hydraulic fluid will be used in equipment operating waterward of the OHWM. The contractor shall also have oil-absorbent materials on site to be used in the event of a petroleum product spill and measures to avoid petroleum products or other deleterious materials from entering surface waters shall be taken.
12. Eelgrass and macroalgae shall not be adversely impacted due to any project activities:
 - a. The construction barge shall not be allowed to ground in the Project area.
 - b. Propwash shall not be directed toward eelgrass beds that are mapped near the Project area.
 - c. Barge anchors and cables will not be placed in the eelgrass bed that is mapped to the south of the dock alignment.
13. All construction materials shall be removed from the work site and natural material shall be returned to their original position at the end of construction.
14. Petroleum products shall not be transferred on or near the joint-use dock. Fuel and lubricating oil shall be purchased and transferred at licensed fuel stations.
15. The float and ramp shall be removed from the site on or near November 1 and reinstalled on or near May 1.
16. A private navigation buoy shall be installed to mark the location of rocks that are seaward of the proposed float.
17. Boat operators shall use the clear channel along the southern approach to the proposed dock to prevent collision with submerged rocks and avoid impacts to the False Bay Reserve.
18. The "Danger Rocks" buoy shall not interfere with navigation and shall be visible in daylight 100 yards away. It shall have reflectors for night visibility.

19. The BMPs in the Orca Dreams Spill Containment, Prevention, and Control Plan shall be strictly followed.
20. If a leak or spill should occur, all in-water work shall cease until the source of the leak is identified and corrected and the contaminants have been removed from the water.
21. All construction equipment shall be maintained in good working order to minimize the risk of fuel and fluid leaks or spills.
22. The project shall comply with all applicable provisions of the Unified Development Code, Title 18 of the San Juan County Code.
23. All other required permits and easements shall be obtained prior to construction.
24. If the dock is abandoned or becomes unsafe, it shall be removed or repaired promptly by the owner. Where any such structure constitutes a hazard to the public, the County may, following notice to the owner, abate the structure if the owner fails to do so within a reasonable time and may impose a lien of the related shoreline property in an amount equal to the cost of the abatement.

EXHIBITS

1. See attached Exhibit List.

**EXHIBIT LIST FOR PSJ000-17-0003
ORCA DREAMS DOCK AND DESALINATION**

EXHIBIT #	PARTY	DESCRIPTION	DATE	STATUS
1	COUNTY	Staff report to Hearing Examiner with attachments 1-14	12/13/17	
2	APPLICANT	Application for Shoreline Substantial Development Permit for Joint-Use Dock and Reverse Osmosis Desalination System and associated application materials	05/19/17	
3	APPLICANT	Request for Review	10/04/17	
4	COUNTY	Mitigated determination of Non-Significance	10/04/17	
5	APPLICANT	Site plans and drawings	REVISED 06/07/17	
6	APPLICANT	Revised Biological Assessment by Fairbanks Environmental	10/24/17 (RECEIVED 12/01/17)	
7	APPLICANT	Revised site plans and drawings	REVISED 05/17/17	
8	APPLICANT	Biological Assessment by Fairbanks Environmental	02/24/17 (RECEIVED 03/03/17)	
9	APPLICANT	Affidavit of posting including Notice of Application	09/05/17	
10	APPLICANT	Cover letter for revised BA and response to UW appeal	12/01/17	
11	APPLICANT	Response to Sundberg et al appeal	12/08/17	
12	COUNTY	The Current Status of Desalination Systems in San Juan County, Washington Executive Summary and Technical Supplement	June 2009	
13	APPLICANT	Zip drive of storm events near proposed dock	Received 12/01/17	
14	VARIOUS	Comment letters	Various	
15	UNIVERSITY OF WASHINGTON	Appeal OF MDNS – PAPL00-17-0010	10/11/17	

DEFENDANT: SAN JUAN COUNTY DEPARTMENT OF COMMUNITY DEVELOPMENT
 APPLICANT: ORCA DREAMS, LLC
 APPELLANT: UNIVERSITY OF WASHINGTON
 APPELLANT: LORING ON BEHALF OF NEIGHBORS
 HEARING EXAMINER: GARY MCLEAN

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**EXHIBIT LIST FOR PSJ000-17-0003
ORCA DREAMS DOCK AND DESALINATION**

16	SUNDBERG ET AL	Appeal of MDNS – PAPL00-17-0012	11/08/17	
17	COUNTY	STAFF REPORT TO HEARING EXAMINER FOR PAPL00-17-0010	12/13/17	
18	COUNTY	STAFF REPORT TO HEARING EXAMINER FOR PAPL00-17-0012	12/13/17	

DEFENDANT: SAN JUAN COUNTY DEPARTMENT OF COMMUNITY DEVELOPMENT
 APPLICANT: ORCA DREAMS, LLC
 APPELLANT: UNIVERSITY OF WASHINGTON
 APPELLANT: LORING ON BEHALF OF NEIGHBORS
 HEARING EXAMINER: GARY MCLEAN

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